



AMENDMENTS TO THE CLAIMS

1.-84. (Canceled).

85. (Previously Presented) A method for producing *Plasmodium falciparum* protein MSP-1 in milk of a non-human transgenic mammal, comprising:

1) providing a non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said MSP-1 operably linked to a promoter which directs expression in a mammary gland and a signal sequence directing secretion of said MSP-1 into milk, wherein said modified nucleic acid sequence has been modified by replacing a number of AT-containing codons of a nucleic acid sequence encoding said MSP-1, as it naturally occurs in *Plasmodium falciparum*, with a codon or codons preferred by a mammalian cell for the purpose of expression and encoding the same amino acid as the replaced AT-containing codon or codons, wherein the number of codons replaced is sufficient to allow expression of said MSP-1 in said non-human transgenic mammal; and

2) allowing said non-human transgenic mammal to express said MSP-1 in its milk.

86. (Previously Presented) A method for producing *Plasmodium falciparum* protein MSP-1 in milk of a non-human transgenic mammal, comprising:

1) providing a non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said MSP-1 operably linked to a promoter which directs expression in a mammary gland and a signal sequence directing secretion of said MSP-1 into milk, wherein said modified nucleic acid sequence has been modified by introduction of one or more silent mutations into a number of AUUUA mRNA instability motifs, as they naturally occur in *Plasmodium falciparum*, thereby eliminating said number of AUUUA instability motifs, allowing expression of said MSP-1 in said non-human transgenic mammal; and

2) allowing said non-human transgenic mammal to express said MSP-1 in its milk.

87. (Previously Presented) A method for producing *Plasmodium falciparum* protein MSP-1 in milk of a non-human transgenic mammal, comprising:

1) providing a non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said MSP-1 operably linked to a promoter which directs expression in a mammary gland and a signal sequence directing secretion of said MSP-1 into milk, wherein said modified nucleic acid sequence has been modified by:

a) replacing a number of AT-containing codons of a nucleic acid sequence encoding said MSP-1, as it naturally occurs in *Plasmodium falciparum*, with a codon or codons preferred by a mammalian cell for the purpose of expression and encoding the same amino acid as the replaced AT-containing codon or codons, and

b) introduction of one or more silent mutations into a number of AUUUA mRNA instability motifs, as they naturally occur in *Plasmodium falciparum*, thereby eliminating said AUUUA instability motifs,

wherein the number of said modifications is sufficient to allow expression of said MSP-1 in said non-human transgenic mammal; and

2) allowing said non-human transgenic mammal to express said MSP-1 in its milk.

88. (Previously Presented) The method of claim 85, 86 or 87 wherein the modified nucleic acid further comprises at least one substitution of a glutamine codon for an asparagine codon, resulting in the loss of at least one N-glycosylation site in said MSP-1.

89. (Currently Amended) A non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding ~~Plasmodium falciparum~~ Plasmodium falciparum protein MSP-1 operably linked to a promoter which directs expression in a mammary gland and a signal sequence directing secretion of said MSP-1 into milk, wherein said modified nucleic acid sequence has been modified by replacing a number of AT-containing codons of a nucleic acid sequence

encoding said MSP-1, as it naturally occurs in *Plasmodium falciparum*, with a codon or codons preferred by a mammalian cell for the purposes of expression and encoding the same amino acid as the replaced AT-containing codon or codons, wherein the number of codons replaced is sufficient to allow expression of said MSP-1 in said non-human transgenic mammal, and wherein said non-human transgenic mammal expresses said MSP-1 in its milk.

90. (Currently Amended) A non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding ~~Plasmodium falciparum~~ Plasmodium falciparum protein MSP-1 operably linked to a promoter which directs expression in a mammary gland and a signal sequence directing secretion of said MSP-1 into milk, wherein said modified nucleic acid sequence has been modified by introduction of one or more silent mutations into a number of AUUUA mRNA instability motifs, as they naturally occur in *Plasmodium falciparum*, thereby eliminating said AUUUA instability motifs, allowing expression of said MSP-1 in said non-human transgenic mammal, and wherein said non-human transgenic mammal expresses said MSP-1 in its milk.

91. (Currently Amended) The non-human transgenic mammal of claim [[90]]89 wherein said modified nucleic acid sequence is further modified by introduction of one or more silent mutations into a number of AUUUA mRNA instability motifs, as they naturally occur in *Plasmodium falciparum*, thereby eliminating said AUUUA instability motifs, and allowing expression of said MSP-1.

92. (Previously Presented) The non-human transgenic mammal of claim 89, 90, or 91 wherein the modified nucleic acid further comprises at least one substitution of a glutamine codon for an asparagine codon, resulting in the loss of at least one N-glycosylation site in said MSP-1.